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The Personalities and Emotional Regulation as a Mediator between Childhood Maltreatment and Criminal Behavior

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Abstract: Childhood abuse is a serious topic of both public health and criminology whose relationship has been determined with the negative development, including antisocial and criminal behavior. However, the processes behind psychological processes through which childhood trauma is transformed into future criminal propensity are not well understood. In this study, the mediating role of personality structure and emotional dysregulation is explored in the relationship between abuse when young and tendencies towards criminal behaviors. A cross-sectional, quantitative design was used, in which 50 students (25 male and 25 female) from the university were sampled, and the students were aged 18-25. The questionnaires were the Childhood Trauma Questionnaire-Short Form (CTQ-SF), the Big Five Inventory-10 (BFI-10), the Difficulties in Emotion Regulation Scale-Short Form (DERS-SF), and an Adapted Self-Report Delinquency Scale. Correlation tests indicated that childhood abuse had a strong positive correlation with maladaptive personality traits (high Neuroticism, low Agreeableness, low Conscientiousness), emotional dysregulation, and propensity to crime. Using the Hayes macro on the mediation analysis termed PROCESS, the test results indicated that personality traits, including emotional dysregulation, mediated the abuse-criminality relationship without each other. In addition, a significant sequential mediation was established, according to which childhood abuse was associated with a less stable personality structure, which, in its turn, led to more emotional dysregulation, which, in its turn, predetermined more criminal tendencies. These findings present the importance of a mechanism-based approach. These suggest that the prevention of the criminal outcomes following the victims of abuse should extend beyond the treatment of the trauma symptoms and will also involve the intervention aimed at establishing resilient personalities and central emotion regulation skills. Theoretical contributions to developmental psychopathology and criminology are discussed.

Keywords: Criminal behaviors, emotional dysregulation, Five-Factor Model, childhood abuse, mediation, trauma

1. Introduction

The etiological origins of criminal behaviors are multi-dimensional, interwoven, and a combination of genetic, neurobiological, environmental, and psychological fibers. Childhood maltreatment is among the strongest environmental risk factors that have been determined through decades of studies; a betrayal of the safety and nurturance of healthy development (Gilbert et al., 2009). Epidemiological research invariably shows that the victims of abusive, either physical, sexual, or emotional abuse, or neglect, retain a significantly high likelihood of committing antisocial and criminal behaviors in adulthood, adolescence to adult life (Widom, 2017). The given correlation, however, raises a very serious question: how does the experience of early abuse get transduced into the possibility of breaking the social norms and laws? The direct route is not always inevitable or general, which means that there are critical mediating processes that make the risk worse or better.

The significance of understanding these mechanisms lies in the ability to go beyond the descriptive risk factors to be able to inform specific prevention and intervention strategies that work. Two candidate mechanisms, which have attracted large, though frequently concurrent, scholarly interest, are lasting personality organization and emotion regulation deficits. Personality-wise, childhood traumas may interfere with the normative development of the self, which may lead to the development of characteristics of criminality, including high Neuroticism (emotional instability), low Agreeableness (antagonism, callousness), and low Conscientiousness (impulsivity, irresponsibility) (Jones et al., 2011). Such characteristics in expression by the prevailing Five-Factor Model (FFM) of personality can constitute a blanket-like dispositional weakness.

At the same time, childhood abuse is one of the main factors in the development of proper emotion regulation systems (Cook et al., 2005). Survivors find it difficult to recognize, process, and regulate extreme emotional states, especially negative affect such as anger, shame, and fear. This is an essential characteristic of most disorders related to trauma, and has been firmly linked to reactive aggression, impulsive decision-making, and drug abuse, all of which are proximal contributors to criminal behaviors (Robertson et al., 2012).

However, there is a need to have a critical integration of theories. It is reasonable to outline that personality and emotional dysregulation may not work in a vacuum of each other, but they are rather dynamically connected in a cascade of development. The abuse in early life can result in instability and antagonism as a personality architecture, which subsequently offers a good breeding ground for chronic emotional dysregulation. This lack of regulation, combined with low constraint, could then directly translate into criminal behaviors as a maladaptive coping mechanism (e.g., to acquire resources, to practice control, or release anger, etc.). This paper hypothesizes that personality and emotional regulation do not just act as independent mediators, but there is a sequence of activities that lead to an understanding of how child victimization leads to behavioral offending in adults.

Thus, this study will explain the precise psychological mechanisms that connect childhood abuse and criminal behaviors by validating a combined mediation model. It will examine whether the relationship can be explained by personality traits and emotional dysregulation separately, and whether these two variables constitute a chain reaction (abuse → personality → emotional dysregulation → criminal behaviors).

1.1. Research Objectives and Hypotheses

The main aim is to test the mediation effects of personality (according to FFM) and emotional self-regulation in the association between childhood maltreatment and self-reported criminal predisposition in non-clinical young adults.

The specific hypotheses are:

H₁: A significant positive correlation will exist between the scores obtained on a scale of childhood abuse and the scores obtained on a scale of criminal propensity.

H₂: Personality traits will mediate the association between childhood abuse and criminal propensity, in that higher Neuroticism, lower Agreeableness, and lower Conscientiousness are personality traits.

H₃: Emotional dysregulation will mediate the association between childhood abuse and criminal propensity.

H₄: A significant sequence pathway of mediation will

exist where childhood abuse forecasts a more sensitive personality profile (high N, low A, low C), which subsequently forecasts increased emotional dysregulation, which will further forecast increased criminal propensity.

2. Literature Review

2.1. Childhood Abuse and Its Long Shadow

Childhood abuse refers to both acts of commission (commonly referred to as physical, sexual, and emotional abuse) and omission (neglect) that harm or can potentially harm the health, survival, or dignity of a child (World Health Organization, 2020). Its effects do not end in childhood but are a long shade into the lifespan. According to neurobiological studies, chronic stress in sensitive age groups can change the structure and functioning of the brain and especially that of emotion, impulse control, and executive function (Teicher et al., 2016). Psychologically, abuse destroys fundamental schemas concerning the self as worthy and the world as safe, resulting in significant disturbance of attachment and psychopathology.

2.2. Abuse-Criminality Link: Professional Evidence

Childhood maltreatment and subsequent criminality are among the most repeated criminology findings. Prospective studies of such seminal nature as that by Widom (1989) with court-substantiated cases discovered that abused and neglected children were much more likely to be arrested as both juvenile and adult offenders of violent, property, and drug-related offenses than their matched controls. This strong effect is supported by meta-analyses and moderate to strong effect sizes of various forms of offending (Malvaso et al., 2016). Such theoretical frameworks as General Strain Theory (Agnew, 1992) assume that abuse qualifies as a strong strain that creates negative affect (e.g., anger, frustration), which can be relieved through criminal coping strategies.

2.3. Personality as a Dialectical Vulnerability

The Five-Factor Model Personality is a manifestation of persistence in thinking, feeling, and acting. FM offers a detailed taxonomy under five broad areas: Neuroticism (vs. emotional stability), Extraversion (vs. introversion), Openness (vs. closedness), Agreeableness (vs.

antagonism), and Conscientiousness (vs. disinhibition). One of the similar meta-analytic results is that there is a strong relationship between criminal and antisocial behaviors and high Neuroticism, low Agreeableness, and low Conscientiousness (Jones et al., 2011). High Neuroticism is associated with emotional volatility and negative affectivity, low Agreeableness is associated with interpersonal antagonism and callousness, and low Conscientiousness is associated with the deficiency of playfulness, impulsivity, and inability to control oneself. These traits can be interfered with by childhood abuse. An example is that a child can be raised in an abusive environment and learn that the world is dangerous (reducing Agreeableness), his or her emotional state is unpredictable and overwhelming (increasing Neuroticism), and long-term plans are useless (reducing Conscientiousness).

2.4. Emotional Dysregulation as a Process Fundamental

Emotional dysregulation is an inability to police, interfere, and modify the emotional reactions to achieve goal-oriented behaviors (Gratz and Roemer, 2004). It has problems concerning emotional awareness, clarity, acceptance, and the ability to employ effective regulation strategies. This is a form of chronic interpersonal trauma in the form of childhood abuse, which basically introduces interference into the adaptive regulation of emotion learning process. The affective displays of the child can be either penalized or not, and are not necessarily con-regulated by the caregivers. Thus, survivors are more likely to respond in an emotional way, being fearful of the control tempest. It is this dysregulation that is a transdiagnostic element of trauma that relates traumas to a plethora of negative outcomes, such as aggression, substance use, and self-harm behaviors that commonly overlap with criminality (Weiss et al., 2013). Violence or robbery can be redefined as unsuitable attempts to control extreme anger, shame, or need states.

2.5. Toward an Integrated Model

Personality and emotion regulation can be differentiated, but they are closely related. Personality traits can be perceived as dispositional dispositions that set the benchmark in the extent of emotional responsiveness and

the kind of control that is sought. Due to a high score in Neuroticism and a low score in Conscientiousness, a person will be more vulnerable to negative moods of strong intensity and less internal resources (e.g., impulse control) to handle them adaptively. This can be theorized as follows: childhood maltreatment will result in a personality structure of instability and deficiency in inhibition; the unstable personality is the element of the criminal behaviors as a maladaptive, short-term solution. The study will aim at testing this integrated pathway in order to fill this literature gap that has been inclined to study these mediators independently.

3. Methodology

3.1. Research Design

The quantitative design was a non-experimental, cross-sectional study that relied on the correlational study design. This is an appropriate design to apply in cases where the researcher has an interest in examining the complex associations between more than two variables of interest and where mediation hypotheses are required to be tested; nevertheless, no causal conclusions can be reached.

3.2. Participants

Fifty students of a university (25 men and 25 women) were selected using a convenience sample of a large public university. The mean age was 20.4 years ($SD = 1.8$). Inclusion criteria included the following: ages between 18 and 25 years and informed consent. The exclusion criteria were: self-reported history of severe neurological disorder or acute psychotic symptoms. The gender balanced sample gave an opportunity to conduct exploratory research on the gender difference, but the main emphasis was on the entire sample.

3.3. Measures

Demographic Information Sheet: The data gathered concerning age, gender, year of study, and family socioeconomic status.

- Childhood Trauma Questionnaire-Short Form (CTQ-SF; Bernstein et al., 2003): This is a self-report scale (28 items) that evaluates five forms of childhood maltreatment: Emotional Abuse, Physical Abuse,

Sexual Abuse, Emotional Neglect, and Physical Neglect. The items are rated on a 5-point Likert scale (1 = Never True to 5 = Very Often True). The CTQ-SF has proved to be very reliable and valid. The overall score (the sum of all subscales) was taken in this work as the main measure of childhood abuse exposure in general (Cronbach 089).

- Big Five Inventory-10 (BFI-10; Ramstad and John, 2007): A 10-item ultra-short scale of the personality domains of the Five-Factor Model. Each of the domains (Neuroticism, Extraversion, Openness, Agreeableness, Conscientiousness) is evaluated using two items on a 5-point scale (1 = Disagree Strongly to 5 = Agree Strongly). The BFI-10 is inexpensive in that it does not capture the depth of longer and more intricate methods, but it offers a consistent and valid indication of the personality structure that can be used in multi-scale research. To conduct the mediation analysis, the scores of Neuroticisms (72), Agreeableness (68), and Conscientiousness (71) were employed.

Considering the present study, the main difficulty lies in the Emotion Regulation Scale-Short Form (DERS-SF; Kaufman et al., 2016): an 18-item tool based on the original 36-item DERS. It has six measures of dysregulation that include Non-acceptance, Goals, Impulse, Awareness, Strategies, and Clarity. The rating will be based on a 5-point scale (1 = Rarely to 5 Always). The sum score points to dysregulation of emotions. Its psychometric properties are high, and it was applied in this study as the mediator ($=.91$).

Classified Self-Report Delinquency Scale (Based on Elliott and Agaton, 1980): A 15-item scale based on the non-clinical student population. The frequency of involvement in different antisocial and delinquent activities (e.g., Shoplifting, Vandalism, Physical assault, using hard drugs, Theft of property) of the last 3 years was reported. The answers were on a 5-point scale (0 = Never, 1 = Once, 2 = 2-3 times, 3 = 4-5 times, 4 = 6 or more times). A total criminal propensity score was the summation score ($=.87$).

3.4. Procedure

The Institutional Review Board of the university

approved the study. The research was conducted online through a web-based survey (Qualtrics). The participants were recruited using the announcement at the classes and the university mailing lists. The information sheet on the study described the sensitivity of the questions, and the voluntary nature of the study, anonymity, and the right to exit the study. The questions were filled in the fixed order of the questionnaires, upon giving the digital informed consent: Demographics, CTQ-SF, BFI-10, DERS-SF, and Delinquency Scale. On completion, a debriefing page was shown in some detail with the contacts of the lead researcher and a list of mental health support services (e.g., University Counselling Centre, National Trauma Helpline). The whole process lasted about 20-25 minutes.

3.5. Data Analysis Plan

The analysis of the data was performed in IBM SPSS Statistics (Version 28). Some initial screening was performed on missing data, outliers, and normality assumptions. Zero-order Pearson correlations between all the main study variables, as well as descriptive statistics, were calculated. To test the mediation hypotheses (H2, H3, H4), the PROCESS macro created by Hayes (Model 4 simple mediation, Model 6 sequential mediation) was applied using 5000 bootstrap samples to derive bias corrected 95% confidence intervals. The mediation effect is said to be statistically significant when the confidence interval excludes zero. Childhood abuse (CTQ total) was used as an independent variable, criminal propensity as a dependent variable, and personality traits (N, A, C) and emotional dysregulation (DERS total) were proposed to mediate between the two variables. All models added gender as a covariate.

4. Results and Discussion

4.1 Preliminary Analyses

There were no major normality and univariate outliers in data screening. The number of missing data was low (less than 0.5 percent) and addressed through listwise deletion. Table 1 shows the descriptive statistics and internal consistency reliabilities of all the measures. The average scores on the CTQ and Delinquency Scale represented the moderate level of the reported exposure to the trauma and the low-to-moderate level of the antisocial behaviors, which is expected in the non-clinical student sample.

presenting the same data in different forms. Where statistical analysis has been done, please give the statistical method(s) used. The standard error should be presented in parenthesis in tables) or as error in graphical form. The probability level and statistically significant data should be indicated appropriately. Tables and figures should be presented as instructed above. Subsections and sub- subsections in this section too should be as given above.

Table 1: Mean, SD, and Correlations of Study Variables (N=50)

Variable	M	SD	1	2	3	4	5
CTQ-Total	38.20	12.45	1				
BFI-Neuroticism	3.45	0.89	.52	1			
BFI-Agreeableness	3.80	0.76	-.41	-.28	1		
BFI-Conscientiousness	3.65	0.82	-.48	-.35	.31	1	
DERS-Total	45.60	13.20	.63	.58	-.39	-.44	1
Delinquency	8.95	7.10	.55	.46	-.50	-.52	.66

Note: CTQ = Childhood Trauma Questionnaire; BFI = the Big Five Inventory; DERS = Difficulties in Emotion Regulation Scale. $p < .05$, $p < .01$.

Correlation outcomes between childhood abuse (CTQ) and neuroticism (Table 1: $r = .52$, $p < .01$), emotional dysregulation (DERS; $r = .63$, $P < .01$), and criminal propensity were significant and positive ($r = .52$, $p < .01$). It had negative relations with the Agreeableness ($r = -.41$, $p < .01$) and Conscientiousness ($r = -.48$, $p < .01$) that confirms the hypothesis that the abuse is associated with a more vulnerable personality type. All the suggested intermediaries had a close connection with criminal inclination in the anticipated direction.

4.2. On the Tests of Hypotheses of Mediation

The covariate of gender was not significantly covariate, and it was included to control, but no interpretation was

taken.

H1: Supported. Childhood abuse had a high effect on criminal propensity, $b = 0.31$, $SE = 0.08$, $t(48) = 3.88$, $p < .001$.

H2: Mediation by Personality. It carried out an individual simple mediation model with Neuroticism, Agreeableness, and Conscientiousness. The three had been important negotiators. O Neuroticism: $b = 0.08$, $Boot SE = 0.04$, $95\% Boot CI = [0.02, 0.18]$, which indicates a high value in the value of the indirect effect. The direct effect was not negligible, meaning that the effect was mediated as well. O Agreeableness: b was found to be significant, $b = 0.10$, $Boot SE = 0.05$, $95\% Boot CI = [0.02, 0.22]$. Partial mediation. O Conscientiousness: B was also significant, $b = 0.12$, $Boot SE = 0.05$, $95\% percent Boot CI = [0.03, 0.24]$. Partial mediation. Thus, H2 was fully supported.

H3: Emotional Dysregulation Mediation. The mask using DERS was also significant, $b = 0.15$, $Boot SE = 0.06$, $95\% Boot CI [0.06, 0.29]$. This no longer had a significant effect on delinquency ($b = 0.16$, $p = .12$), indicating that they were completely mediated by emotional dysregulation. H3 was supported.

H4: Sequential Mediation. A serial mediation model was carried out using the personality trait that had the most individual mediation (Conscientiousness) and DERS as the second variable (Model: Abuse $\rightarrow$ Conscientiousness $\rightarrow$ DERS $\rightarrow$ Delinquency). It was found that the sequence effect was significantly indirect, $b^* = 0.05$, $Boot SE = 0.03$, $95\% Boot CI = [0.01, 0.12]$. The 4indirect effect via all channels was good. H4 was supported. This means that one of the mechanisms through which childhood abuse may affect criminal behaviors works through an initial suppressed Conscientiousness and subsequent gain in emotional dysregulation, which in turn boosts criminal tendencies.

5. Discussion

The main objective of this research was to define the psychological mechanisms that connect childhood abuse and criminal behaviors through the testing of a combined model that included personality and emotional dysregulation as the mediating factors. The results

provide strong evidence of the hypothesis relationships and give a more detailed comprehension of the mechanism of this well-reported connection.

5.1. Summary and Interpretation of the most important findings

As several studies already indicate (Widom, 2017), a close direct correlation between retrospective reports of childhood abuse and self-reported criminal propensity was observed (H1). More to the point, personality traits and emotional dysregulation were both important factors that accounted for this relationship. The findings regarding H2 confirm that the survivors of abuse are more likely to experience a personality profile of a high level of emotional instability, low level of agreeableness, and low level of conscientiousness, which in itself is a significant predictor of antisocial behaviors (Jones et al., 2011). This is with the theories of traumatic environments affecting the long-term dispositions to negative emotionality, interpersonal distrust, and poor self-control. It was also interesting that the H3 support was especially high because emotional dysregulation completely mediated the abuse-delinquency connection. This highlights that the employment of emotion regulation deficits is the key proximal cause of crime. Lacking the capacity to cope with high levels of emotion such as anger, shame, or despair, people can use externalizing behaviors such as aggression, drug use, or acquisitive crime as a short-term maladaptive regulatory mechanism (Robertson et al., 2012). Most importantly, the sequential mediation (H4) has offered empirical evidence on an integrated developmental pathway. The discovery that childhood abuse is predictive of reduced Conscientiousness, which is then predictive of increased emotional dysregulation, which in turn is predictive of increased criminality, represents a possible form of causality. This implies that the low Conscientiousness levels of disinhibition and low impulse control make them vulnerable to being overwhelmed by emotions. A person with already low planning and restraint scores is not well-prepared to enact any adaptive regulation strategies in times of distress, and therefore, dysregulated criminal adaptation is more probable. This model fills the gap between dispositional (personality) and process-oriented (emotion regulation) explanations.

5.2 Theoretical Implications

The theoretical ways of integration of the results are the following. To begin with, they offer a lending hand to the extensions of the General Strain Theory, i.e., emotional dysregulation is a predictor variable, and this predetermines one of the strategies, i.e., strain (abuse) translation into criminal coping. Secondly, they provide an insight into the developmental psychopathology models because they illustrate how the past traumas are internalized in the personality makeup in an attempt to cause a long-lasting vulnerability. The sequential model leads to the developmental cascade theory that states that once one system (formation of personality) is perturbed, then another system (control of emotion) is perturbed too, and the outcome is the failure of the formation of the behaviors.

5.3. Clinical implications, Practical implications

The high prevention and intervention implications of such findings are:

Child Protection and Screen and Early Intervention: The child protection services of the maltreated children must also encompass screening of problems arising in the sphere of emotion control and personality loss (ex. impulsiveness, callousness).

Trauma-Informed Rehabilitation: The juvenile justice programs and the criminal justice programmes will be informed by the trauma-informed rehabilitation. This manipulative attitude towards the treatment of the abused offenders can no longer be practiced in terms of the behavioral management process, as well as the dysregulations of feelings (e.g. Dialectical Behavior Therapy), and maladaptive patterns of personality (e.g., schema therapy) should also be discussed.

Prevention Programs: Universal school-based programs would serve as a buffer, offering emotional intelligence, distress tolerance, and impulse control that would grant the highest possibility of preventing the risk. Prevention in children would include the enhancement of the control mechanism.

5.4. Shortcomings and Prospects

Such a decision will need to be made by imposing a series of restrictions that will force one to arrive at the conclusions. To begin with, cross sectional study design cannot give final causal results. The inspired theory mediation models will be applied, yet the longitudinal or experimental studies will be required to establish the time precedence. Second, the possible issue of the common method and recall bias would be attributed to the self-reporting in the case of the former abuse as a child. Third, it is not a clinical sample because the sample represents the students of the university, and it is challenging to generalize the sample to more serious populations, such as populations of convicted offenders or populations with clinical diagnoses. The criminal behaviors had not been reported to have a high rank. Finally, the limited sample is enough to obtain the first mediation analysis; it may be limited to monotonicity of the estimates and the identification of more complex relationships, i.e., gender.

The longitudinal study of the at-risk children in their old age and the multi-measures (e.g., official records, the reports of the caregivers, and neuropsychological tasks) should be applied in future research. The research needs to be further developed according to other samples of clinical and forensic cases, as it is significant to realize how the model has external validity in more heinous cases. The other useful intervention would also be to consider those protective factors (e.g., secure attachment, high IQ, social support) that can also be implemented in the mentioned mediation pathways.

5.5. Conclusion

This paper presents strong arguments that the connection between childhood abuse and criminal behaviors is not straightforward. It is greatly mediated through the lasting scars that have been created upon the personality development and the vital ability to control emotions. The sequential nature of the pathway by which abuse leads to the development of a disinhibited personality that promotes emotional dysregulation provides a more integrated and clinically applicable conceptualization of the victim-to-offender pathway. By shifting our attention, as researchers have done, towards these mediating factors, i.e., by focusing on developing conscientiousness, agreeableness, emotion regulation

ability, etc., we can ensure that we can develop a more effective approach towards the disruption of the cycle of violence and resiliency in survivors of childhood maltreatment.

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